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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/696,100	10/29/2003	Joel Jameson	4000735.0023	7104

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EXAMINER

BOYCE, ANDRE D

ART UNIT

PAPER NUMBER

3623

DATE MAILED: 10/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/696,100	Applicant(s) JAMESON, JOEL	
	Examiner Andre Boyce	Art Unit 3623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3 and 4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3 and 4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on September 5, 2006 has been entered.
2. Claims 3 and 4 are pending.
3. The previously pending objection to the specification, seen in the office action mailed May 3, 2005 remains.

Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Horrigan et al (USPN 6,493,682), in view of Barrett et al (US 2004/0088392).

As per claim 3, Horrigan et al disclose a computer-implemented method for generating scenarios (multiple optimizations using different scenarios, column 6, lines 62-65) for subsequent use comprising the following steps: Obtaining at least

two Weighting EFDS (i.e., forecasts in the form of distributions, wherein the joint distribution is between returns and order execution rates, column 4, lines 31-33); Accessing data contained in a Foundational Table (i.e., NxN diagonal matrix, where the investor has N securities to transact, column 11, lines 8-10 and 27-31); resolving non-convergence conflicts between two said Weighting EFDS to determine bin weights and said accessed data contained in said Foundational Table (i.e., dependent variables segregated into bins, with the probability of ending up in one of the bins is estimated, column 20, lines 32-33); Using said bin weights to determine a first at least one weight for a first at least one row of said Foundational Table; Using said bin weights to determine a second at least one weight for a second at least one row of said Foundational Table (i.e., dependent variable may take on 10 values, ranging from 1 to 10, where a 1 corresponds to 0% filled, 2 corresponds to a fill rate $\geq 10\%$, etc., column 20, lines 33-38); Providing said first at least one weight, said second at least one weight, said first at least one row of said Foundational Table, said second at least one row of said Foundational Table as at least two scenarios in a form suitable for an entity that subsequently uses said at least two scenarios (i.e., the scenario may then be estimated using a generalized maximum likelihood estimation technique, column 20, lines 38-40).

Horrigan et al does not disclose using an iterative proportional fitting procedure that resolves non-convergence conflicts. Barrett et al disclose a system that simulates and analyzes movement and interdependencies between entities in a network (§ 0057). Further, Barrett et al disclose determining a proportion of entities

in a particular classification (i.e., determining bin weights) using a two-stage iterative proportional fitting procedure (§ 0075). Horrigan et al and Barrett et al are both concerned with obtaining weights in order to aggregate results, therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to include using an iterative proportional fitting procedure in Horrigan et al, as seen in Barrett et al, as an effective means of determining proportion of entities in each classification, thus making the Horrigan et al system more robust.

6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Horrigan et al (USPN 6,493,682), in view of Gould et al (USPN 5,966,700).

As per claim 4, Horrigan et al disclose a computer-implemented method to share risk between at least two parties (i.e., determination of whether or not to place an order using a risk averse investor's expected utility maximization, column 4, lines 54-57) comprising the following steps: accepting an ac-Distribution (i.e., joint distribution, column 4, lines 31-33), comprising at least two bins, each said at least two bins having associated probabilities greater than zero (i.e., dependent variables segregated into bins, with the probability of ending up in one of the bins is estimated, including greater than 0% but less than 10% and greater than or equal to 10% but less than 20% column 20, lines 32-38); using at least two bins from said at least two parties (i.e., dependent variables segregated into bins), a logarithmic numeric transformation (e.g., return to an executed purchase order, column 7, lines 13-20), and said accepted contract quantities (i.e., amount to trade) to determine a

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PayoffMatrix comprising at least two rows and at least two columns (i.e., $N \times N$ diagonal matrix, where the investor has N securities to transact, column 11, lines 8-10 and 27-31); determining which of said at least two bins subsequently manifests (i.e., probability of ending up in a bin); arranging a transfer of consideration based upon said PayoffMatrix (i.e., determining the scenario using a generalized maximum likelihood estimation technique, column 20, lines 38-40).

Horrigan et al does not explicitly disclose accepting a distribution of two bins from each of said at least two parties and accepting a contract quantity from each of said at least two parties. Gould et al disclose managing the allocation of risk between a mortgage originator and a funding institute (column 2, lines 21-24), including an agreement between the two parties which defines rates, fees, and total dollar amount (i.e., contract quantity, column 4, lines 20-25). Further, Gould et al disclose determining whether certain rates and fees fall within an acceptable tolerance value of an external fee (i.e., bin separation), and substituting the existing rate and fee schedule for a new one (column 7, lines 28-34). Both Horrigan et al and Gould et al are concerned with optimizing risk aversion, wherein Gould et al disclose allocating risk among parties, therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to include accepting a distribution, comprising at least two bins, from each of said at least two parties and accepting a contract quantity from each of said at least two parties in Horrigan et al, as seen in Gould et al, as an effective means of distributing the risk among a plurality of investors in Horrigan et al, thus making the system more efficient.

Response to Arguments

7. In the Remarks, with respect to claim 3, Applicant argues that the combination of the Horrigan in view of Barrett does not teach each and every element of the claimed invention and that the references lack the requisite motivation to combine. The Examiner respectfully disagrees and submits that Horrigan in view of Barrett indeed teaches every limitation, as seen in the above rejection. In addition, the Examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, both references are concerned with obtaining weights in order to aggregate results, wherein both systems include analytical and simulation models designed to create a representation of entities and activities, thus solving analogous problems and indeed providing motivation to one of ordinary skill in the art to combine the references.

With respect to claim 4, Applicant argues that the combination of the Horrigan in view of Gould does not teach each and every element of the claimed invention and that the references lack the requisite motivation to combine. The Examiner respectfully disagrees and submits that Horrigan in view of Gould indeed teaches every limitation, as seen in the above rejection. In addition, the Examiner recognizes that obviousness can only be established by combining or modifying the

teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, both references are concerned with optimizing risk aversion. In addition, Gould discloses managing the allocation of risk, thus solving analogous problems and indeed providing motivation to one of ordinary skill in the art to combine the references.

Conclusion


8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andre Boyce whose telephone number is (571) 272-6726. The examiner can normally be reached on 9:30-6pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on (571) 272-6729. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

adb
September 30, 2006


ANDRE BOYE
PATENT EXAMINER
AU. 3623